

REMARKS

Reconsideration of the pending claims in the above-identified application is respectfully requested on the basis of the following particulars.

1. In the claims

In the amendment of the claims, claim 1 is amended to further delineate the bank note processing machine described therein from systems cited in the prior art. Specifically, claim 1 is amended to recite that the transport system includes a singling unit and at least one stacking unit. The singling unit is subsequently described as singling bank notes and such singled bank notes are transported to the at least one stacking unit according to an evaluation of data obtained by the sensors by the control device.

Support for the amendment of claim 1 is clearly found in the specification on page 3, last two lines through page 4, first two lines. Therefore, no new matter is introduced in the pending application.

It is submitted that the amendment of claim 1 complies with U.S. formalities and 35 U.S.C. § 112.

Entry of the amendment of claim 1 is kindly requested in the next Office communication.

2. Rejection of claims 1, 2 and 4-7 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 6,039,645 (Mazur) and U.S. patent 6,766,056 (Huang et al.)

In view of the amendment of claim 1 and the following remarks, this rejection is respectfully traversed on the basis that the Mazur patent and the Huang et al. patent, whether considered individually or collectively, fail to disclose or suggest the bank note processing machine according to claim 1. Accordingly, claim 1 is patentable in view of the combination of teachings of the Mazur and Huang et al. patents since the combination of these references does not constitute a case of *prima facie* obviousness.

Claims 2 and 4-7 are patentable due to their dependency from claim 1 and their individually recited features.

a. Mazur patent

One of ordinary skill in the art would not be motivated to make the bank note processing machine according to claim 1 in view of the teachings of the Mazur patent on the basis of the following particulars.

- (1) The Mazur patent does not disclose or suggest a bank note processing machine;
- (2) the Mazur patent does not disclose or suggest a memory system having a drive and a storage medium which are suitable for optical and/or magnetic recording; and
- (3) the coin processing machine according to the Mazur patent is unsuited for including a computer system that has a drive and a storage medium suitable for optical and/or magnetic recording.

First, the Mazur patent is generally directed to a coin sorting machine. Nowhere in the Mazur patent is there any reference to bank note processing.

While the action indicates that the machine according to the Mazur patent is a “money processing machine,” the action fails to make the obvious distinction over the differences between coin processing and bank note processing. Indeed, coins and bank notes are processed differently, and the machines that process coins and bank notes are configured differently. These differences are self-evident in view of the description on the basic elements of the coin processing machine in the Mazur patent (col. 4, line 22 – col. 7, line 8), and in the pending application (page 3, second to last line through page 7, last line).

It is therefore submitted that one skilled in the art of bank note processing would not turn to a teaching on coin processing to make the present invention due to the inherent differences that such a machine would entail.

In order to further distinguish the bank note processing machine according to claim 1 from the coin processing machine of the Mazur patent, claim 1 now requires a singling unit and at least one stacking unit that handle the bank notes. A singling unit and at least one stacking unit are common to most bank note processing machines. The singling unit is required to separate bank notes from a stack of bank notes to be processed, and the at least one stacking unit is used to place the bank notes in a stack after they have been evaluated by a control device. It is this very control device which has a memory system that is updated, altered or supplemented according to claim 1 in order to properly evaluate bank notes.

The Mazur patent simply fails to teach a machine having a singling unit and at least one stacking unit, and furthermore makes no reference to the processing of bank notes, currency bills, or any other type of sheet material.

Second, as correctly pointed out in the action, the Mazur patent does not disclose or suggest a bank note processing machine wherein the memory system has a drive and a storage medium which are suitable for optical and/or magnetic recording. Instead, it is explained by the Mazur patent that it is highly preferred to employ a flash memory to update software employed by the system controller since the flash memory enables the memory to be erased and reprogrammed within fractions of a second, and that it is an inexpensive method of software replacement as compared to other known methods such as those employing EEPROM memory (col. 8, lines 34-58).

Third, there is no disclosure or suggestion in the Mazur patent that would tend to motivate a skilled artisan to provide a bank note processing machine with a drive and a storage medium which are suitable for optical and/or magnetic recording. On the contrary, the Mazur patent envisions a very limited memory system that provides inexpensive memory replacement within fractions of a second, and no input via keystrokes or other data entry by an operator.

According to the Mazur patent and as was addressed in the remarks of November 12, 2004 in reply to the Office action of August 13, 2004, it is

undesirable to provide a memory system that does not provide quick and easy installation of software to be executed by the system controller (col. 8, lines 59-62). Moreover, installation of the software should not involve removing memory and replacing resident memory chips, and should be performed without entering several keystrokes (col. 2, lines 25-29).

Accordingly, the memory system of the Mazur patent is relatively inflexible with respect to the storage medium available for updating since it is very limited to the type of permissible storage medium. In the alternative, the memory system recited in claim 1 of the pending application permits an operator to select from a plurality of memory systems and may include criteria for selecting memory by memory volume, size, robustness and price (specification, page 2, lines 20-22).

Having made these observations on the shortcomings of the Mazur patent, the Huang et al. patent is next shown not to make up for these shortcomings.

b. Huang et al. patent

The Huang et al. patent suffers from the following drawbacks that would preclude one of ordinary skill in the art to turn to this patent to modify the coin processing machine of the Mazur patent into the bank note processing machine according to amended claim 1.

- (1) The Huang et al. patent does not disclose or suggest a bank note processing machine according to the machine prescribed by pending claim 1; and
- (2) the Huang et al. patent provides teachings that are non-analogous those of the Mazur patent.

First, the Huang et al. patent does not disclose or suggest a bank note processing machine having all of the features required by claim 1. Instead, the Huang et al. patent teaches two different embodiments, the first embodiment is a photocopier or the like described in col. 3, line 41 through col. 21, line 52, and shown in Figs. 2-18. The second embodiment is a general purpose computer system described in col. 21, line 53 through col. 22, line 57, and shown in Fig. 19.

Neither of the two embodiments described by the Huang et al. patent include a bank note processing machine including a transport system having a singling unit and at least one stacking unit which stacks the bank notes according to an evaluation, as specifically described in amended claim 1.

It will be noted that the Office action incorrectly refers to both the photocopier and the computer system of the two different embodiments of Huang et al. patent interchangeably. Each embodiment, however, is specifically referred by the Huang et al. patent as being a different embodiment.

While the Huang et al. patent teaches a method of detecting a mark forming part of an image in order to prevent the photocopying of bank notes, there is simply no discussion on actually processing the mark by evaluating the mark and processing the bank note accordingly. On the contrary, upon detection of a certain mark on the bank notes copied by the photocopier, the Huang et al. patent indicates that the photocopier will prevent copying of the bank note, sound a warning, or shut the photocopier down (col. 21, lines 45-53).

It is thus clear that the photocopier, or general-purpose computer system of the Huang et al. patent does not constitute a bank note processing machine. Moreover, one skilled in the art of bank note processing machines would not be motivated by teachings of mark reproduction and the prevention thereof of the type described by the Huang et al. patent to make a bank note processing machine having the features of pending claim 1.

Lastly, the teachings of forgery prevention in a photocopier or similar device is non-analogous to those directed towards a coin sorting machine. The Huang et al. patent is only concerned with the prevention of forged paper documents since it is openly discussed by the Huang et al. patent that it aims to provide a method and apparatus for preventing the copying of high quality color photocopying of bank notes and other valuable instruments (col. 1, lines 13-21). There is no indication in the Huang et al. patent of making copies of coins, and rightly so: one cannot forge copies of coins with a photocopier.

In view of the observations of the Mazur and Huang et al. patents, it will now be shown how one skilled in the art would not be motivated to make the bank note processing machine according to claim 1 of the pending application.

c. Combination of the Mazur and the Huang et al. patents

In view of the observations on the Mazur and Huang et al. patents, it is respectfully submitted that these patents do not constitute a case of *prima facie* obviousness on the basis of the following particulars:

- (1) The combined teachings of the Mazur and Huang et al. patents fail to teach each and every limitation of claim 1;
- (2) there is no motivation among the Mazur and Huang et al. patents, or knowledge readily known to one skilled in the art to combine the teachings of these patents to make the bank note processing machine according to claim 1; and
- (3) even if the Mazur and Huang et al. patents were combined, there is no reasonable expectation that a bank note processing machine would successfully be obtained.

First, the Mazur and Huang et al. patents fail to disclose or suggest a bank note processing machine having each and every feature required by claim 1. Particularly, neither of these references disclose or suggest bank note processing, and especially processing wherein bank notes are singled and transported past sensors to a stacking unit which stacks the bank notes according to an evaluation conducted by a control device. It is this very control device which has a memory system that is altered, supplemented, or replaced in order to properly evaluate the bank notes.

It is well understood that in assessing differences, section 103 specifically requires consideration of the claimed invention "as a whole", and as such, consideration must be given to portions of the prior art reference that would lead away from the claimed invention. It is asserted that a skilled artisan in the field of bank note processing would not be motivated by the Huang et al. patent to modify

the coin sorter of the Mazur patent to make a bank note processing machine since the Huang et al. patent merely teaches a photocopier or general purpose computer system having image detection features to prevent the copy of certain valuable instruments.

Next, as pointed out above, neither the coin processing machine of the Mazur patent, nor the photocopier having an image detection unit of the Huang et al. patent, constitute a bank note processing machine prescribed by claim 1. These references essentially provide teachings which are not analogous to a bank note processing machine having all of the features required by claim 1. Accordingly, one skilled in the art of bank note processing would not be motivated by either of the Mazur patent or the Huang et al. patent to make a bank note processing machine having a memory system comprising a drive and a storage medium which are suitable for optical and/or magnetic recording, and which can be altered, supplemented or replaced by such drive and storage medium.

The Office action points to the general purpose computer system of the Huang et al. patent and propose to combine this computer system with the coin processing machine according to the Mazur patent. The photocopier of the Huang et al. is clearly not useable with the coin processing machine of the Mazur patent. Apparently, however, the action only indicates the magnetic disk or magneto-optical device of the computer system of the Huang et al. patent without factoring that the magnetic disk or magneto-optical device forms just one part of the computer system of the Huang et al. patent. The remainder of the computer system is selectively ignored in the action, and particularly the teaching by the Huang et al. patent that indicates that the magnetic disk or magneto-optical device is merely used to load the computer system (col. 22, lines 36-57).

It is asserted that in order to use the magnetic disk or magneto-optical device of the Huang et al. patent in combination with the coin processing machine of the Mazur patent, the entire computer system must be also used since, taken alone, the magnetic disk or magneto-optical device cannot operate without the computer

system. The use of a general-purpose computer system, however, is clearly undesirable according to the teachings of the Mazur patent.

According to the Mazur patent, it is undesirable to provide a memory system that does not provide quick and easy installation of software to be executed by the system controller (col. 8, lines 59-62). Moreover, installation of the software should not involve removing memory and replacing resident memory chips, and should be performed without entering several keystrokes (col. 2, lines 25-29). It follows that the Mazur patent envisions a very limited memory system that provides inexpensive memory replacement within fractions of a second, and no input via keystrokes or other data entry by an operator.

The memory system of the Mazur patent is relatively inflexible with respect to the storage medium available for updating since it is very limited to the type of permissible storage medium. In the alternative, the memory system recited in claim 1 of the pending application permits an operator to select from a plurality of memory systems and may include criteria for selecting memory by memory volume, size, robustness and price (specification, page 2, lines 20-22).

As is readily apparent, the Mazur patent has no need for a personal computer of the type described by the Huang et al. patent, and the interface employed by the Mazur patent renders a personal computer unnecessary. The action simply fails to make any reconciliation of the fact that the interface used by the Mazur patent is a PCMCIA compatible receptacle. Moreover, the proposed modification of the coin sorter of the Mazur patent would necessitate a connection to a personal computer of the type described by the Huang et al. patent that would require keystrokes to make software modifications and overall greatly increases the expense and method of updating software.

Of course, as discussed above, the Mazur patent employs the flash memory so as to provide more quick and easy updates of system software and/or tailor the software without removing and replacing resident memory chips and without entering several keystrokes (col. 1, lines 23-29). Thus, the Mazur patent does not

suggest the desirability to include the personal computer system of the Huang et al. patent, and instead describes alternative methods to install and erase software. It follows that there is no suggestion or motivation in the Mazur and Huang et al. patents themselves to make the proposed combination.

Lastly, even if the Mazur and Huang et al. patents were combined, there is no reasonable expectation that a bank note processing machine according to claim 1 would successfully be obtained. This is due to the teachings of the Mazur patent of a coin sorting machine, and the Huang et al. patent that teaches a photocopier or computer system having image detection features to prevent the copy of certain valuable instruments. Neither of these patents describe processing the bank notes by singling and stacking the bank notes according to an evaluation.

It is submitted that one skilled in the art would not be motivated to make a bank note processing machine from a coin sorting machine. As indicated above, there are simply mechanical differences that do not enable a modification of a coin sorting machine to arrive at a bank note processing machine. The Huang et al. patent does not assist this modification since it is only concerned with the detection of certain marks on valuable instruments, and either provides a signal or stops the machine upon detection of such marks. As a result, it is clear that the Huang et al. patent does not provide any teaching that would transition the modification of the coin sorting machine to a bank note processing machine.

There are simply too many gaps among the Mazur patents and Huang et al. patent that preclude one of ordinary skill at making a bank note processing machine having all of the features of claim 1 based on these patents.

To base a rejection on a combination which has no basis in the references themselves, and which is essentially inoperative when the intended purposes and functions of the structures to be combined are considered, is clearly an improper hindsight rejection. It is submitted that the proposed combination of the Mazur patent to include the image detection system and personal computer system of the

Huang et al. patent would change the principle of operation of the Mazur patent and, most importantly, run contrary to explicit teachings in the Mazur patent.

Moreover, the personal computer system of the Huang et al. runs contrary to both the memory system of the Mazur patent, and as such, substantial reconstruction and redesign of the coin sorting machine of the Mazur patent would be required to include the personal computer system of Huang et al. patent. The proposed combination would likely remove or render useless essential features of the Mazur patent such as the PCMCIA compatible receptacle and the use of flash memory.

3. Conclusion

In view of the amendment to claim 1, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that each and every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicant's attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Date: June 22, 2005